



U.S. Department
of Transportation

**Research and
Special Programs
Administration**

DOT-E 10501
(THIRD REVISION)

MAY 30 2000

400 Seventh Street, S.W.
Washington, D.C. 20590

EXPIRATION DATE: April 30, 2002

(FOR RENEWAL, SEE 49 CFR § 107.109)

1. GRANTEE: Semi-Bulk Systems Incorporated
Fenton, MO
2. PURPOSE AND LIMITATION: This exemption authorizes the manufacture, mark, sale and reuse of the UN13L2 flexible intermediate bulk container described herein for the transportation in commerce of solid hazardous materials as specified in paragraph 6. This exemption provides no relief from any regulation other than as specifically stated herein.
3. REGULATORY SYSTEM AFFECTED: 49 CFR Parts 106, 107 and 171-180.
4. REGULATIONS FROM WHICH EXEMPTED: 49 CFR § 173.35(b).
5. BASIS: This exemption is based on the application of Semi-Bulk Systems, Incorporated's dated May 15, 2000, submitted in accordance with § 107.109.
6. HAZARDOUS MATERIALS (49 CFR § 172.101):

Hazardous materials description -- proper shipping name	Hazard Class/ Division	Identi- fication Number	Packing Group
Solid hazardous materials authorized by 49 CFR 172.101 and Part 173 to be shipped in UN13L2 flexible intermediate bulk containers	Division 4.1, 4.2, 4.3, 5.1, 6.1, Class 8 and Class 9, as appro- priate	As appro- priate	II or III

MAY 30 2000

7. PACKAGING AND SAFETY CONTROL MEASURES:

- a. PACKAGING - Packagings prescribed are UN13L2 flexible intermediate bulk containers meeting all applicable requirements of Part 178 and consisting of flexible bulk bags which are attached to high density polyethylene pallets. The packaging is not designed or intended for top lifting or stacking and must not be top lifted or stacked. The packaging criteria are as follows:

i. BAGS. The bags are cylindrical in shape and constructed from woven polyester, nylon or other high strength synthetic fabric coated on both sides with a flexible plastic material(s) compatible with the hazardous material to be transported. The minimum uncoated fabric weight is 7 oz. per square yard for the sidewalls, and 5.5 oz. per square yard for the top. The upper sidewall of the bag is fitted with four straps with "D-rings" to support the bag from collapsing during filling and discharge but not for lifting the filled packaging.

ii. BASE. The base is a double-walled and rotationally molded high density polyethylene pallet which incorporates a 4-way fork lift entry. The top surface of the base is grooved. A very low porosity woven nylon membrane fits over the grooved top of the base to distribute fluidizing air and to prevent loss of contents. The bag is joined to the base by two metal ring clamps - one "U-shaped" with two, two-bolt buckles, the other flat using a worm drive. Bag slippage is prevented by flanges in the base that receive the ring clamps and sewn-in ropes in the bag between which the ring clamps are placed. The bag-to-base joint is sealed by a soft, mastic sealant.

iii. CLOSURE. The filling opening in the top of the bag consists of a rigid plastic "manhole" attached to the top center of the bag by means of an internally-installed, gasketed clamp. The "manhole" is closed by means of a snap-on plastic cap fitted with a smaller plastic plug in the center of the cap. An additional "iris" isolation valve may be installed internal to the

MAY 30 2000

plastic cap. The discharge opening integral to the plastic base is closed by means of a positive lock, elastomer expansion-type "o-plug". An additional isolation gate valve may be installed internal to the plug closure. The air inlet opening in the base is closed by means of a plastic plug.

iv. CAPACITY. The bags are constructed in three sizes: 56 inches high (35 cubic foot capacity), 72 inches high (50 cubic capacity) and 85 inches high (62 cubic foot capacity) are identical in all other respects. The maximum allowable gross weight is 4100 pounds for each design.

- b. TESTING - Packaging must be successfully tested at the Packing Group II performance level in accordance with the provisions of Subpart O of Part 178 applicable to flexible intermediate bulk containers not designed to be lifted from the top. Test procedures, design type definition, frequency of testing, and record retention by Semi-Bulk Systems, Inc., must be as required by § 178.801.
- c. MARKING - Each packaging must be permanently and durably marked in accordance with the requirements of § 172.331 in letters at least two inches high on a contrasting background.
- d. REUSE - The requirements of § 173.35(b) apply to the use of packagings under this exemption except that the packagings may be reused under the conditions prescribed in this paragraph. Packagings used more than once must be in such condition, including closure devices, that they conform in all respects to the requirements of this exemption, and to the applicable requirements in 49 CFR Parts 173 and 178. In addition:
 - i. After each use, and while still under conditioning air pressure during unloading, each bag must be inspected according to Semi-Bulk Systems, Inc.'s "Procedure for Inspection of Air Pallet Container Prior to and During Unloading", which is on file with OHMEA.

MAY 30 2000

Continuation of DOT-E 10501 (3rd Rev.)

Page 4

ii. After each use, and immediately prior to filling for each reuse, each bag must be inspected according to Semi-Bulk Systems, Inc.'s "Procedure for Inspection of Air Pallet Container Prior to Filling", which is on file with OHMEA.

iii. If any packaging is ruptured, damaged, or overall integrity is degraded sufficiently to affect safety in transport, it must be rejected or repaired according to Semi-Bulk Systems Inc.'s "Procedure for Clean-out and Repair of Air Pallet Containers", which is on file with OHMEA. Repaired packagings must have the integrity of undamaged packagings before reuse.

iv. If a packaging is reused for hazardous materials service, then it must only be used to transport the same hazardous material, or a fully compatible similar hazardous material of the same hazard class, as was present in the packaging during its first use in hazardous materials transport.

8. SPECIAL PROVISIONS:

a. In accordance with the provisions of Paragraph (b) of § 173.22a, persons may use the packaging authorized by this exemption for the transportation of the hazardous materials specified in paragraph 6, only in conformance with the terms of this exemption.

b. A person who is not a holder of this exemption, but receives a package covered by this exemption, may reoffer it for transportation provided no modifications or changes are made to the package and it is offered for transportation in conformance with this exemption and the HMR.

c. A current copy of this exemption must be maintained at each facility where the package is offered or reoffered for transportation.

d. Each packaging manufactured and reused under the authority of this exemption must be either (1) marked with the name of the manufacturer and location (city and state) of the facility at which it is manufactured or (2) marked with a registration symbol designated by the Office of Hazardous Materials Exemptions and Approvals for a specific manufacturing facility.

MAY 30 2000

e. A current copy of this exemption must be maintained at each facility where the package is manufactured under this exemption. It must be made available to a DOT representative upon request.

f. Semi-Bulk System Inc.'s "Procedures for Inspection and Repair" must be kept at each location where such procedures are performed and must be made available to a DOT representative upon request.

9. MODES OF TRANSPORTATION AUTHORIZED: Motor vehicle, rail freight and cargo vessel.
10. MODAL REQUIREMENTS: A current copy of this exemption must be carried aboard each cargo vessel used to transport materials covered by this exemption.
11. COMPLIANCE: Failure by a person to comply with any of the following may result in suspension or revocation of this exemption and penalties prescribed by the Federal hazardous materials transportation law U.S.C. 5101 et. seq.
 - o All terms and conditions prescribed in this exemption and the Hazardous Materials Regulations, 49 CFR Parts 171-180.
 - o Registration required by § 107.601 et seq., when applicable.

Each "Hazmat employee", as defined in § 171.8, who performs a function subject to this exemption must receive training on the requirements and conditions of this exemption in addition to the training required by § 172.700 through § 172.704.

No person may use or apply this exemption, including display of its number, when the exemption has expired or is otherwise no longer in effect.

12. REPORTING REQUIREMENTS: The carrier is required to report any incident involving loss of packaging contents or packaging failure to the Associate Administrator for Hazardous Materials Safety (AAHMS) as soon as practicable.

(Sections 171.15 and 171.16 apply to any activity undertaken under the authority of this exemption.) In addition, the holder(s) of this exemption must inform the AAHMS, in writing, of any incidents involving the package and shipments made under the terms of this exemption.

Issued at Washington, D.C.:



for Robert A. McGuire
Acting Associate Administrator
for Hazardous Materials Safety

MAY 30 2000

(DATE)

Address all inquiries to: Associate Administrator for Hazardous Materials Safety, Research and Special Programs Administration, Department of Transportation, Washington, D.C. 20590.
Attention: DHM-31.

The original of this exemption is on file at the above office. Photo reproductions and legible reductions of this exemption are permitted. Any alteration of this exemption is prohibited.

Copies of exemptions may be obtained from the AAHMS, U.S. Department of Transportation, 400 7th Street, NW, Washington, DC 20590-0001, Attention: Records Center, 202-366-5046.

PO: sln